

U.S.S.N. 09/625,963

Filed: July 26, 2000

MARKED UP VERSION OF AMENDMENTS PURSUANT TO 37 C.F.R. § 1.121

Marked Up Version of Amended Claims**Pursuant to 37 C.F.R. § 1.121(c)(1)(ii)**

1. (Twice Amended) A peptide [comprising the amino acid sequence] having at least 8 but fewer than 100 amino acids, which peptide comprises an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); the amino acid sequence CMTWNQMNL (SEQ ID NO:2), the amino acid sequence HLMFPFGPLL (SEQ ID NO:3), or a portion or variant thereof provided that the peptide is not intact human WT-1 polypeptide and is not intact human gata-1 polypeptide] a peptide comprising at least six consecutive amino acids of SEQ ID NO:1; and variants thereof wherein the side chains of one or two of the amino acids of SEQ ID NO:1 are altered.

4. A peptide according to claim 1 wherein the peptide is capable of binding to HLA-A0201.

5. A peptide according to claim 4 wherein when bound to HLA-A0201 the peptide-bound HLA-A0201 is capable of eliciting the production of a cytotoxic T lymphocyte (CTL) which recognises a cell which aberrantly expresses a polypeptide comprising the given amino acid sequence.

6. The peptide of claim 1 wherein the peptide includes non-peptide bonds.

7. (Twice Amended) A peptide [according to Claim 1] consisting of the amino acid sequence RMFPNAPYL (SEQ ID NO:1).

Please cancel claims 8-14.

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CLEAN VERSION OF AMENDMENTS PURSUANT TO 37 C.F.R. § 1.121

Clean Version of Amended Claims
Pursuant to 37 C.F.R. § 1.121(c)(1)(ii)

1. (Twice Amended) A peptide having at least 8 but fewer than 100 amino acids, which peptide comprises an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); a peptide comprising at least six consecutive amino acids of SEQ ID NO:1; and variants thereof wherein the side chains of one or two of the amino acids of SEQ ID NO:1 are altered.

B1
Sub
C1

4. A peptide according to claim 1 wherein the peptide is capable of binding to HLA-A0201.

5. A peptide according to claim 4 wherein when bound to HLA-A0201 the peptide-bound HLA-A0201 is capable of eliciting the production of a cytotoxic T lymphocyte (CTL) which recognises a cell which aberrantly expresses a polypeptide comprising the given amino acid sequence.

6. The peptide of claim 1 wherein the peptide includes non-peptide bonds.

7. (Twice Amended) A peptide consisting of the amino acid sequence RMFPNAPYL (SEQ ID NO:1).

B2
Sub
D3

15. (Twice Amended) A pharmaceutical composition comprising the peptide of Claim 1 and a pharmaceutically acceptable carrier.

B3
Sub
D4

19. (Twice Amended) A vaccine for a cancer in which WT-1 is aberrantly expressed comprising a peptide having at least 8 but fewer than 100 amino acids, which peptide comprises an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); a

Sub
D5
B4

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15. (Twice Amended) A pharmaceutical composition comprising [a] the peptide [according to] of Claim 1 and a pharmaceutically acceptable carrier.

Please cancel claims 16-18.

19. (Twice Amended) A [cancer] vaccine for a cancer in which WT-1 is aberrantly expressed comprising a peptide [comprising a peptide according to Claim 1, a polynucleotide encoding the peptide, or an expression vector capable of expressing the peptide] having at least 8 but fewer than 100 amino acids, which peptide comprises an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); a peptide comprising at least six consecutive amino acids fo SEQ ID NO:1; and variants thereof wherein the side chains of one or two of the amino acids of SEQ ID NO:1 are altered.

Please cancel claims 20 and 22-38.

43 39. (New) The peptide of claim 1 comprising the amino acid sequence RMFPNAPYL (SEQ ID NO:1).

44 40. (New) The peptide of claim 1 consisting of from 8 to 12 amino acids.

45 41. (New) The peptide of claim 1 which is capable of being processed by an antigen presenting cell so that a fragment is produced which is able to bind to HLA-A0201.

46 42. (New) A peptide consisting of from 8 to 12 amino acids and comprising an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); a peptide comprising at least six consecutive amino acids of SEQ ID NO:1; and a variant thereof wherein the side chains of one or two of the amino acids of SEQ ID NO:1 are altered.

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43. (New) A peptide consisting of 8 to 12 amino acids and comprising an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); and a peptide comprising at least six consecutive amino acids of SEQ ID NO:1.

44. (New) The vaccine of claim 19 wherein the cancer is leukaemia, breast, melanoma or ovarian cancer.

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AMENDMENT AND RESPONSE TO OFFICE ACTION

In the Claims

1. (Twice Amended) A peptide [comprising the amino acid sequence] having at least 8 but fewer than 100 amino acids, which peptide comprises an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); the amino acid sequence CMTWNQMNL (SEQ ID NO:2), the amino acid sequence HLMFPFGPLL (SEQ ID NO:3), or a portion or variant thereof provided that the peptide is not intact human WT-1 polypeptide and is not intact human gata-1 polypeptide] a peptide comprising at least six consecutive amino acids of SEQ ID NO:1; and variants thereof wherein the side chains of one or two of the amino acids of SEQ ID NO:1 are altered.

7. (Twice Amended) A peptide [according to Claim 1] consisting of the amino acid sequence RMFPNAPYL (SEQ ID NO:1).

Please cancel claims 8-14.

15. (Twice Amended) A pharmaceutical composition comprising [a] the peptide [according to] of Claim 1 and a pharmaceutically acceptable carrier.

Please cancel claims 16-18.

19. (Twice Amended) A [cancer] vaccine for a cancer in which WT-1 is aberrantly expressed comprising a peptide [comprising a peptide according to Claim 1, a polynucleotide encoding the peptide, or an expression vector capable of expressing the peptide] having at least 8 but fewer than 100 amino acids, which peptide comprises an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); a peptide comprising at least six

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consecutive amino acids fo SEQ ID NO:1; and variants thereof wherein the side chains of one or two of the amino acids of SEQ ID NO:1 are altered.

Please cancel claims 20 and 22-38.

39. (New) The peptide of claim 1 comprising the amino acid sequence RMFPNAPYL (SEQ ID NO:1).

40. (New) The peptide of claim 1 consisting of from 8 to 12 amino acids.

41. (New) The peptide of claim 1 which is capable of being processed by an antigen presenting cell so that a fragment is produced which is able to bind to HLA-A0201.

42. (New) A peptide consisting of from 8 to 12 amino acids and comprising an amino acid sequence selected from the group consisting of, RMFPNAPYL (SEQ ID NO:1); a peptide comprising at least six consecutive amino acids of SEQ ID NO:1; and a variant thereof wherein the side chains of one or two of the amino acids of SEQ ID NO:1 are altered.

43. (New) A peptide consisting of from 8 to 12 amino acids and comprising an amino acid sequence selected from the group consisting of RMFPNAPYL (SEQ ID NO:1); and a peptide comprising at least six consecutive amino acids of SEQ ID NO:1.

44. (New) The vaccine of claim 19 wherein the cancer is leukaemia, breast, melanoma or ovarian cancer.

Remarks

Claims 1, 4-7, 15, 19, and 39-44 are pending. Claims 1, 7, 15, and 19 have been amended. New claims 39-44 have been added. Claims 8-14, 16-18, 20, and 22-38 have been cancelled. Support for the amendments made to claim 1 can be found, for example, at page 9,

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